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OBSERVATIONS ON THE EPIGEOUS COLEOPTERS FAUNA IN SOME FRUIT APPLE ORCHARDS

ANDRON GEORGEL, TĂLMACIU MIHAI, HEREA MONICA, MANOLE LILIANA, TĂLMACIU NELA

ABSTRACT

Observations were made at the SC Loturi Service SRL Delești, Vaslui in a fruit tree apple orchards where a vegetal carpet is made especially of garlands between the rows of trees.

In the plantation it was chosen to maintain the interval between rows as a black the field and as an overworked interval that could influence the local ecosystem conditions, with multiple effects on the quantity and quality of the fruit and finally on the profitability of the apple culture.

To collect the biological material, were used six Barber soil traps which were arranged on a single row of trees at a distance of 10 m between them.

The traps worked for 5 days in each of the three months: April, May, June. In April between 25 and 30, in May between 5 and 10 and in June between 10 and 15

At each collection, the trap material was cleansed by plant debris, and the entomofauna collected was brought to the lab and then the useful and harmful species were identified.

Keywords: Barber soil traps, entomophagous, apple orchard

INTRODUCTION

Natural combat, that is population reduction of pests under the influence of factors in agriculture, which are directly adjusted by humans, is achieved due to unfavorable environmental factors and by biotic factors. Entomophagous in the adult or larval stadium attack a significant number of individuals from a species of pests or from several species, which leads to a reduction in pest populations (T. Baicu și A. Săvescu 1978).

In the present paper, observations have been made in the apple tree fruit orchards on entomophagous moving to the surface of the soil.

The second category includes a number of internal factors of the population itself and entomophagous (predators, parasites) and entomopathogens.

MATERIAL AND METHOD

The observations were made in a apple fruit tree orchards belonging to SC

Loturi Service SRL Delești, Vaslui County, in the year 2017.

For harvesting the material, we have been used the soil traps type Barber.

The traps were placed in the plantation from April to July, with 6 traps at a time using two variants.

V1- black field;

V2- The interval between rows it was grass area.

The traps worked for 5 days in each of the three months: April, May, June.

In April between 25 and 30, in May between 5 and 10 and in June between 10 and 15.

RESULTS AND DISCUSSIONS

At Variant 1 (table 1), the black field, in April were collected the species of beetles in the total number of 101 specimens in the 6 traps belonging to a number of 14 species.

The species with the highest number of specimens collected were: *Anisodactylus binnotatus* F. with 38

specimens and *Harpalus distinguendus* Duft. with 32 specimens.

In Variant 2 (table 2), the grass area between interval rows were collected a number of 34 specimens of beetles belonging to a number of 10 species. The species with the highest number of specimens collected were *Anisodactylus binotatus* F., with 11 specimens and *Harpalus distinguendus* Duft. with 9 specimens.

In May, at 1st Variant (table 3), black field it was collected 90 specimens of beetles belonging to a number of 14 species. The species with the highest number of specimens were *Harpalus distinguendus* Duft. With 28 specimens, *Anisodactylus binotatus* with 24 specimens and *Paramalus parallepipedicus* with 21 specimens.

In 2nd Variant (table 4), the grass area between interval rows were collected specimens as follows: 86 specimens belonging to 16 species. The species with the highest number of *Anisodactylus binotatus* with 48 specimens and *Harpalus distinguendus* with 8 samples.

In June at Variant 1 black field (table 5), a number of 59 specimens were collection, belonging to 21 species.

The species with the highest number of collected specimens were *Anisodactylus binotatus* and *Dermestes lanarius* with 12 specimens.

In Variant 2 (table 6), the grass area between interval rows were collected a number of 64 specimens of 18 species.

In the period of observations to the two variants, the situation shall be presented as follows: at 1st Variant the black field the largest number of beetles were collected in April, 101 specimens, and at Variant 2 the highest number was collected in May, with 86 specimens. The largest number of species was collected in June in Variant 1, in total number 22, and

at Variant 2 the highest number of species were collected also in June, in the total number of 20 (table 7, fig.1).

CONCLUSIONS

The highest number of specimens and species were collected in Variant 1, the Black the field during the period of observations 250 specimens belonging to 22 species, respectively 184 specimens and 20 species in Variant 2.

1. The species with the highest number of specimens collected were: *Anisodactylus binotatus* with 74 specimens to V1 and 29 specimens to Variant 2 and *Harpalus distinguendus* with 65 specimens to V1 and 29 specimens to V2.

BIBLIOGRAPHY

1. **Baicu T. Săvescu A.**, 1978 - Combaterea integrată în protecția plantelor, Edit. Ceres București
2. **Panin S.**, 1951 - *Identification manual of harmful and useful beetles in R. P. R.* Publisher of State for scientific and didactic literature, Bucuresti.
3. **Reitter E.**, 1908-1916- *Fauna Germanica*. Die Kafer des Deutschland Reichs Lutz., Edit. Stuttgart, Stuttgart, 5., p. 246, p 392.; p 436.; p 236.; p 342.
4. **Tălmăciu M., Mocanu Ionela, Herea Monica, Tălmăciu Nela, Manole Liliana**, 2016 - *Observations on Invertebrates Fauna Encountered in Some Agricultural Crops*, Full Paper Proceeding NDMRP, Istanbul, 2, p. 119-129.
5. **Tălmăciu Nela, Tălmăciu M., Herea Monica**, 2010 - *Comparative research on the structure and abundance of beetles in some orchards*, Bulletin of University of Agricultural Sciences and veterinary medicine Cluj – Napoca, (vol 67 (1)), p.156-164.

Table 1

Situation of harvesting at V1 - 25.04 - 30.04

No.	Name of species	Sample						Total
		1	2	3	4	5	6	
1.	<i>Oxypora vittata</i>	2	-	4	-	1	-	7
2.	<i>Agriotes</i> sp.	-	-	1	-	-	-	1
3.	<i>Anisodactylus binnotatus</i>	9	8	3	6	6	6	38
4.	<i>Harpalus distinguendus</i>	9	3	3	7	9	1	32
5.	<i>Cantharis fusca</i>	-	-	1	1	1	1	4
6.	<i>Pleurophorus caesus</i>	-	1	1	-	-	-	2
7.	<i>Otiorrhynchus pinastri</i>	-	-	1	-	-	-	1
8.	<i>Quedius alpestris</i>	-	2	4	1	1	-	8
9.	<i>Tachyusa coarctata</i>	2	1	-	-	-	-	3
10.	<i>Antichus humeralis</i>	1	-	-	-	-	-	1
11.	<i>Coccinella 7 punctata</i>	1	-	-	-	-	-	1
12.	<i>Metabletus truncatulus</i>	-	-	-	1	-	-	1
13.	<i>Aphthona euphorbiae</i>	-	-	-	1	-	-	1
14.	<i>Anthicus floralis</i>	-	-	-	1	-	-	1
14 species		24	15	18	18	18	8	101

Table 2

Situation of harvesting V2-25.04 - 30.04

No.	Name of species	Sample						Total
		1	2	3	4	5	6	
1.	<i>Metabletus truncatulus</i>	-	1	-	-	1	-	2
2.	<i>Harpalus distinguendus</i>	-	3	-	-	2	4	9
3.	<i>Epicometis hirta</i>	-	1	-	-	-	-	1
4.	<i>Otiorrhynchus pinastri</i>	-	1	-	-	2	-	3
5.	<i>Epurea obsoleta</i>	-	1	-	-	-	-	1
6.	<i>Oxytelus nitidulus</i>	-	2	-	-	-	-	2
7.	<i>Anisodactylus binnotatus</i>	-	3	-	-	1	7	11
8.	<i>Antichus humeralis</i>	-	-	-	-	-	1	1
9.	<i>Tachyusa coarctata</i>	-	-	-	-	-	3	3
10.	<i>Anisoplia</i> spp.	-	-	-	-	1	-	1
10 species		0	12	0	0	7	15	34

Table 3

Situation of harvesting V1-05-10.05

No.	Name of species	Sample						Total
		1	2	3	4	5	6	
1.	<i>Harpalus calceatus</i>	-	-	-	3	-	-	3
2.	<i>Anisodactylus binnotatus</i>	-	-	13	11	-	-	24
3.	<i>Harpalus distinguendus</i>	-	-	17	11	-	-	28
4.	<i>Dermestes lanarius</i>	-	-	-	1	-	-	1
5.	<i>Otiorrhynchus pinastri</i>	-	-	-	1	-	-	1
6.	<i>Harpalus tardus</i>	-	-	-	1	-	-	1
7.	<i>Cantharis fusca</i>	-	-	1	2	-	-	3
8.	<i>Paramalus parallelipedicus</i>	-	-	-	21	-	-	21
9.	<i>Sticticallis tobias</i>	-	-	-	1	-	-	1
10.	<i>Dorcadion pedestre</i>	-	-	1	-	-	-	1
11.	<i>Amara crenata</i>	-	-	1	-	-	-	1
12.	<i>Acrulia inflata</i>	-	-	1	-	-	-	1
13.	<i>Pseudophonus rufipes</i>	-	-	2	-	-	-	2
14.	<i>Harpalus griseus</i>	-	-	2	-	-	-	2
14 species		0	0	38	52	0	0	90

Table 4

Situation of harvesting V2-05-10.05

No.	Name of species	Samples						Total
		1	2	3	4	5	6	
1.	Anisodactylus binnotatus	-	9	4	16	10	9	48
2.	Harpalus distinguendus	-	2	5	2	9	-	18
3.	Aphodius granarius	-	-	-	1	-	-	1
4.	Metabletus truncatulus	-	-	-	1	1	2	4
5.	Siparia circularis	-	-	-	3	1	-	4
6.	Ceuthorrhynchus troglodytes	-	-	-	1	-	-	1
7.	Epicometis hirta	-	-	-	-	1	-	1
8.	Harpalus aeneus	-	-	-	-	1	-	1
9.	Valgus hemipterus	-	1	-	-	-	-	1
10.	Harpalus tardus	-	1	-	-	-	-	1
11.	Pseudocleanus cinereus	-	-	1	-	-	-	1
12.	Dorcadion pedestre	-	-	1	-	-	-	1
13.	Colodera aetiops	-	-	1	-	-	-	1
14.	Monotoma picipes	-	-	1	-	-	-	1
15.	Tachyusa coarctata	-	-	-	-	-	1	1
16.	Atomaria nigripennis	-	-	-	-	-	1	1
16 species		0	13	13	24	23	13	86

Table 5

Situation of harvesting V1-10-15.06

No.	Name of species	Samples						Total
		1	2	3	4	5	6	
1.	Anisodactylus binnotatus	1	4	-	3	2	2	12
2.	Harpalus distinguendus	-	1	1	3	-	-	5
3.	Dermestes lanarius	4	1	4	1	1	2	13
4.	Amara crenata	-	1	-	-	-	1	2
5.	Phyllotreta atra	-	1	2	-	-	1	4
6.	Anthicus humeralis	-	1	-	-	-	-	1
7.	Crypticus quisquilius	-	1	-	-	-	-	1
8.	Anthicus floralis	-	-	-	-	1	-	1
9.	Coccinella 7 punctata	-	-	-	-	1	-	1
10.	Ophonus sabulicola	-	-	-	-	2	-	2
11.	Brachynus explodens	-	-	-	-	1	-	1
12.	Paramalus parallelipipedicus	-	-	-	1	-	2	3
13.	Phalacrus corruscus	-	-	-	-	-	1	1
14.	Harpalus pubescens	-	-	1	1	-	-	2
15.	Pterostichus cupreus	-	-	-	1	-	-	1
16.	Aphthona euphorbiae	-	-	1	-	-	-	1
17.	Pterostichus niger	-	-	2	-	-	-	2
18.	Otiorrhynchus pinastri	3	-	-	-	-	-	3
19.	Argopus bicolor	1	-	-	-	-	-	1
20.	Ceutorhynchus pyrrhorhynchus	1	-	-	-	-	-	1
21.	Tachyporus abdominalis	1	-	-	-	-	-	1
21 species		11	10	11	10	8	9	59

Table 6

Situation of harvesting V2-10-15.06

No.	Name of species	Samples						Total
		1	2	3	4	5	6	
1.	Metabletus truncatulus	-	-	2	1	-	1	4
2.	Anisodactylus binnotatus	-	2	3	1	-	2	8
3.	Harpalus distinguendus	-	-	1	1	-	1	3
4.	Dermestes lanarius	-	-	-	-	-	1	1
5.	Monotoma picipes	1	-	-	-	-	1	2

6.	Otiorrhynchus pinastri	2	3	3	6	-	-	14
7.	Xylodromus concinnus	-	-	1	-	-	-	1
8.	Paramalus parollepipedicus	-	-	-	3	3	-	6
9.	Amara crenata	1	5	-	1	1	-	8
10.	Phalacrus corruscus	-	-	-	-	1	-	1
11.	Antichus floralis	1	-	-	1	-	-	2
12.	Pteringium crenatum	2	-	-	1	-	-	3
13.	Malachus bipustulatus	-	-	-	2	-	-	2
14.	Coccinella bipunctata	-	-	-	1	-	-	1
15.	Scimnus auritus	-	-	-	3	-	-	3
16.	Ceuthorrhynchus troglodytes	-	-	-	1	-	-	1
17.	Aphthona euphorbiae	-	1	-	2	-	-	3
18.	Hygrotus inequalis	1	-	-	-	-	-	1
18 species		8	11	10	24	5	6	64

Table 7

Species with the highest number of specimens collected

Variant	No.	Name of species	Month			Total
			April	May	June	
V1	1	Anisodactylus binnotatus	38	24	12	74
	2	Harpalus distinguendus	32	28	5	65
V2	1	Anisodactylus binnotatus	11	48	8	67
	2	Harpalus distinguendus	9	18	2	29

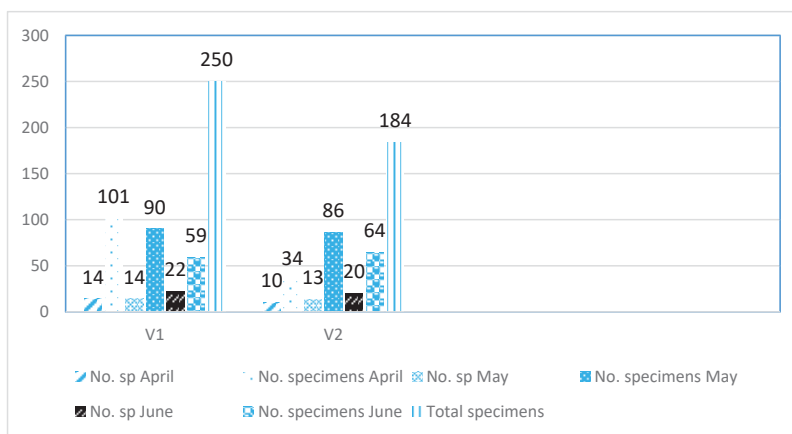


Fig. 1. Evolution of the number of specimens and species per month and by variants

STRUCTURE, DYNAMICS AND ABUNDANCE OF ARTHROPODS COLLECTED FROM SOME APPLE FRUIT TREE ORCHARDS

ANDRON GEORGE, TĂLMACIU MIHAI, HEREA MONICA, TĂLMACIU NELA

Keywords: *apple orchards, arthropods, useful species*

ABSTRACT

For the study of the arthropods species of apple orchards and observations were made of the collected material by the soil traps type Barber.

The traps placed in plantation were six in number, it's situated on two row, by three per line.

The traps were put in a formaldehyde solution with a concentration of 3-4%. The gathering of the material was made on the following dates: 15.05; 30.05; 30.06 and 15.07. The most common taxons collected were: Coleoptera, Heteroptera, Diptera, Hymenoptera, Dermaptera, Arahnida, Miriapoda, Lepidoptera, Homoptera.

INTRODUCTION

Arthropods are animals to which appear the articulated legs. They belong to several classes, namely: *Crustacea*, *Arachnida*, *Miriapoda* and *Insecta*.

The *Crustacea* class (crustaceans) are the arthropods that have the hard skin, covered with a crust. Most of them are aquatic species, but there are also harmful species that live on land. These belong to the order of *Isopoda* and the prefall of the *Armadillidium vulgare* species.

Among the arthropods, the most numerous specimens belong to the Class *Insecta (Hexapoda)* (Radu Ghe. V. 1967).

In the *Arachnida* class are both harmful and useful species. The harmful species belong to the *Acari* order, and the useful species belong to the order of *Aranea* (spiders) (Boguleanu and colab. 1980).

In this paper are brought some contributions to the knowledge of these groups of animals in some orchards.

MATERIAL AND METHOD

The collection of arthropods was made with the soil traps type Barber in the year 2018 on the following dates: 15.05, 30.05, 30.06 and 15.07.

The material consisting of the arthropods collected was selected on traps and data to harvest them. It was cleared of plant debris, then identified and inventoried the main groups of arthropods.

RESULTS AND DISCUSSIONS

At the first harvest from 15.05.2018 were collected 162 specimens, belonging to a number of 10 taxons. Most belong to the insect class at the following orders: *Hymenoptera* with most specimens, 48, *Coleoptera* with 41 specimens and *Diptera* with 31 specimens.

In the 2nd harvest dated 30.05.2018, the specimens of arthropods belonging to 10 taxons were collected. The greatest representation had a hyenopters with 173 specimens, arachnids with 39 specimens, heteropters with 36 specimens and coleopters with 35 specimens.

At the 3rd Harvest of 15.06.2018, 171 specimens of arthropods were collected belonging to the following taxon groups: *Coleoptera*, *Heteroptera*, *Hymenoptera*, *Diptera*, *Miriapoda*, *Colembola* and *Arachnida*. The most well represented were himenopters with a number of 49 specimens, followed by coleopters with 46 specimens.

At the 4th Harvest of 30.06.20185 were collected 55 specimens of arthropods belonging to 7 taxons. It was best to represent the order of *Hymenoptera* with 15 specimens collected.

At the 5th Harvest of 15.07.2018, only 72 specimens were collected. The largest number of specimens had the himenopters with 27 specimens and the coleopters with 17 specimens.

During the observation, 795 specimens belonging to collected arthropods fauna. Most specimens belonged to the Insecta class and to the following groups: *Hymenoptera* (308 specimens), *Coleoptera* (167 specimens), *Heteroptera* (99 specimens) and *Diptera* with 98 specimens.

CONCLUSIONS

1. The most numerous arthropods that were collected belong to the insect class. The most numerous insect groups belong to *Hymenoptera* and *Diptera*.

2. In total, 795 specimens of arthropods belonging to a number of 10 taxons were collected.

BIBLIOGRAPHY

1. **Boguleanu Gh., Bobarnac B. și colab.** 1980 - *Entomologie Agricolă*, Editura Didactică și Pedagogică, București.

2. **Florkin M.** 2014 - *Chemical Zoology, Volume VI, Arthropoda*, Part B, Elsevier, Academic Press New York AND London.

3. **Hegna, T.A. et al.** 2013 - *The correct authorship of the taxon name 'Arthropoda'. Arthropod systematics & phylogeny*, vol 71, no. 2, pag. 71–74

4. **Legg D. A.** 2014 - *Sanctacaris uncata: the oldest chelicerate (Arthropoda) Naturwissenschaften*, vol. 101 no.12 pag. 1065-1073

5. **Malschi Dana, Mustea D.,** 1993 - *Studiul structurii și dinamicii faunei de artropode utile din culturile de câmp în centrul Transilvaniei în scopul reducerii tratamentului cu insecticide. Probleme de protecția plantelor*, Vol XXI, nr. 2, pag. 171 – 183.

6. **Manolache C., Boguleanu Gh.,** 1967- *Entomologie Agricolă*, Editura Didactică și Pedagogică, București.

7. **Manolache C., Boguleanu Gh.,** 1978 - *Tratat de zoologie agricolă*, vol. 1, 2, Ed. Academia Republicii Socialiste România.

8. **Tâlmăci M., Nela Tâlmăci, Monica Herea, F. Roșca,** 2009 - *Observations on key pests of apple plantations and pear, plum, sweet cherry and cherry of the working area of Unit Phytosanitary Vaslui, Vaslui County in 2008.* Analele Universității din Craiova, Ed. Universitaria, Vol. XIL(XLX), pag. 389-395.

9. **Vasile Gh. R., Varvara V.R.,** 1967- *Zoologia nevertebratelor*, vol.2, Editura Didactică și Pedagogică, București.

Table 1

Situation of collections on 15.05.2018

No.	Name of taxon	Samples						Total
		1	2	3	4	5	6	
1	Diptere	-	4	-	19	2	7	32
2	Himenoptere	10	-	1	32	-	5	48
3	Coleoptere	8	5	5	12	3	8	41
4	Miriapode		1	-	5	-	-	6
5	Arahnide	3	1	-	13	-	-	17
6	Heteroptere	5	-	-	-	-	5	10
7	Homptere	2	-	-	-	-	-	2
8	Lepidoptere	1	-	1	1	-	1	4
9	Ortoptere	-	-	-	1	-	-	1
TOTAL								161

Table 2

Situation of collections on 30.05.2018

No.	Name of taxon	Samples						Total
		1	2	3	4	5	6	
1	Coleoptere	9	6	10	-	8	2	35
2	Heteroptere	6	5	17	-	-	8	36
3	Diptere	13	-	-	-	13	3	29
4	Himenoptere	18	45	53	-	22	35	173
5	Dermaptere	2	-	-	-	-	-	2
6	Crisopide	1	-	-	-	-	-	1
7	Arahnide	13	5	8	-	5	8	39
8	Miriapode	2	-	1	-	-	2	5
9	Lepidoptere	2	-	-	-	2	2	6
10	Homoptere	3	-	3	-	-	3	9
Total								335

Table 3

Situation of collections on 15.06.2018

No.	Name of taxon	Samples						Total
		1	2	3	4	5	6	
1	Coleoptere	19	-	-	6	-	18	43
2	Heteroptere	15	-	-	10	-	1	26
3	Himenoptere	28	-	-	14	-	7	49
4	Diptere	3	-	-	8	-	6	17
5	Homoptere	5	-	-	-	-	2	7
6	Miriapode	3	-	-	-	-	-	3
7	Colebole	17	-	-	-	-	-	17
8	Arahnide	-	-	-	5	-	4	9
Total								171

Table 4

Situation of collections on 30.06.2018

No.	Name of taxon	Samples						Total
		1	2	3	4	5	6	
1	Heteroptere	5	-	-	-	-	6	11
2	Cicade	2	-	-	-	-	-	2
3	Arahnide	3	-	-	-	-	-	3
4	Himenoptere	10	-	-	-	5	-	15
5	Lepidoptere	1	-	-	-	-	1	1
6	Coleoptere	11	-	-	-	-	3	14
7	Diptere	-	-	-	-	2	7	9
Total								55

Table 5

Situation of collections on 15.07.2018

No.	Name of taxon	Samples						Total
		1	2	3	4	5	6	
1	Dermaptere	1	-	-	-	-	-	1
2	Homoptere	2	3	-	-	-	1	5
3	Heteroptere	4	7	-	-	-	5	16
4	Diptere	8	4	-	-	-	2	14
5	Himenoptere	2	2	-	-	-	23	27
6	Coleoptere	1	11	-	-	-	5	17
7	Arahnide	-	4	-	-	-	-	7
8	Lepidoptere	-	-	-	-	-	1	1
Total								72